

This listing replaces all prior versions and listings of claims in the application.
Listing of Claims:

Claim 1 (currently amended): A composition comprising (i) an enzyme that effects cleavage of a linkage that is comprised of a phosphatidylinositol and that membrane-anchors a surface protein or a carbohydrate ~~in~~ on a pathogen, whereby said cleavage effects release of said surface protein or carbohydrate, said enzyme being other than an endo-1,4- β -D-mannanase, and (ii) a physiologically acceptable carrier for said enzyme, wherein said composition is in a form suitable for oral administration and wherein said cleavage interferes with host cell-pathogen binding in the intestines, such that the infective ability of said pathogen to said host cell is reduced.

Claims 2-20 (cancelled)

21. (Withdrawn) A method of treating or ameliorating the risk of a digestive tract infection, comprising orally administering, to a subject suffering from or at risk for suffering said infection, an effective amount of enzyme that cleaves a linkage that effects release of a cell-surface protein or carbohydrate, wherein said enzyme is other than an endo-1,4- β -D-mannanase.

22. (Withdrawn) The method according to claim 21, wherein said enzyme cleaves a linkage that effects release of a cell-surface protein.

23. (Withdrawn) The method according to claim 21, wherein said method does not include administering an anti-infection agent other than said enzyme.

24. (Withdrawn) The method according to claim 21, wherein said infection is caused by a protozoan, bacterial, yeast, or fungal pathogen.

25. (Withdrawn) The method according to claim 24, wherein said infection is caused by a protozoan pathogen of the genus *Eimeria*.

26. (Withdrawn) The method according to claim 24, wherein said infection is caused by a protozoan pathogen of the genus *Cryptosporidium*

27. (Withdrawn) The method according to claim 24, wherein said infection is caused by a bacterial pathogen of the genus *Clostridium*.

28. (Withdrawn) The method according to claim 21, comprising administering orally, to said subject, an extracellular enzyme preparation from a *Bacillus cereus* strain.

29. (Withdrawn) The method according to claim 28, wherein said *Bacillus cereus* strain is ATCC 7004 or ATCC 6464.

30. (Withdrawn) The method according to claim 21, wherein said enzyme is obtained by expression of a recombinant DNA in a host organism.

31. (Withdrawn) The method according to claim 29, wherein said host organism is from a *Bacillus megaterium* strain.

Claim 32 (currently amended): A composition comprising (i) an enzyme that ~~effects cleavage of a linkage that is comprised of a phosphatidylinositol and that membrane anchors a surface protein or a carbohydrate in a pathogen, whereby said cleavage effects release of said~~ **cleaves a linkage that effects release of a surface** protein or a carbohydrate and (ii) a physiologically acceptable carrier for said enzyme, wherein said composition is in a form suitable for oral administration and does not contain an anti-infection agent other than said enzyme, **wherein said enzyme is a carbohydrase or a cerebrosidase** and wherein said cleavage interferes with host cell-pathogen binding **in the intestines**, such that the infective ability of said pathogen to said host cell is reduced.

33. (Withdrawn) A method of treating or ameliorating the risk of a digestive tract infection, comprising orally administering, to a subject suffering from or at risk for suffering said infection, an effective amount of enzyme that cleaves a linkage that effects release of a cell-surface protein or carbohydrate, wherein said method does not include administering, with said enzyme, an antimicrobially effective amount of another anti-infection agent.

Claim 34 (previously presented): The composition according to claim 1, wherein said composition is a feed.

Claim 35 (previously presented): The composition according to claim 1, wherein said composition contains no anti-infection agent other than said enzyme.

Claim 36 (previously presented): The composition according to claim 1, wherein said enzyme cleaves a linkage that effects release of a cell-surface protein.

Claim 37 (cancelled)

Claim 38 (cancelled)

Claim 39 (currently amended): The composition according to claim ~~38~~ 1, wherein said ~~phospholipase~~ enzyme is a type C or type D phospholipase.

Claim 40 (currently amended): The composition according to claim ~~38~~ 39, wherein said type C phospholipase is a phosphatidylinositol-specific phospholipase C.

Claim 41 (previously presented): The composition according to claim 1, wherein said composition further comprises a stabilizer, a carbohydrate carrier or a preservative.

Claim 42 (previously presented): The composition according to claim 41, wherein said stabilizer is a buffer, a carbohydrate or a glycol.

Claim 43 (previously presented): The composition according to claim 41, wherein said carbohydrate carrier is selected from the group consisting of xylose, fructose, glucose, sorbitol, and maltotriose.

Claim 44 (previously presented): The composition according to claim 41, wherein said preservative is selected from the group consisting of propylparaben, sodium sorbate, potassium sorbate, and ascorbyl palmitate.

Claim 45 (previously presented): The composition according to claim 1, wherein said carrier is a foodstuff into which said enzyme is incorporated.

Claim 46 (previously presented): The composition according to claim 45, wherein said foodstuff is an animal feed comprised of grain material, a source of protein, vitamins, amino acids, and minerals.

Claim 47 (previously presented): The composition according to claim 46, wherein said grain material is corn, sorghum, wheat, barley or oats.

Claim 48 (previously presented): The composition according to claim 46, wherein said source of protein is beans or peas.

Claim 49 (previously presented): The composition according to claim 1, wherein said composition is in a solid or a liquid formulation.

Claim 50 (previously presented): The composition according to claim 1, wherein said enzyme is contained in a tablet or a gelatin capsule shell.

Claim 51 (previously presented): The composition according to claim 1, wherein said enzyme is prepared from a *Bacillus cereus* strain.

Claim 52 (previously presented): The composition according to claim 51, wherein said *Bacillus cereus* strain is ATCC 7004 or ATCC 6464.

Claim 53 (previously presented): The composition according to claim 1, wherein said enzyme is obtained by expression of a recombinant DNA in a host organism.

Claim 54 (previously presented): The composition according to claim 53, wherein said host organism is from a *Bacillus megaterium* strain.

Claim 55 (previously presented): The composition according to claim 1, wherein said enzyme is present at 200 IU/Kg – 4000 IU/Kg feed.

Claim 56 (previously presented): The composition according to claim 32, wherein said carrier is a foodstuff into which said enzyme is incorporated.

Claim 57 (previously presented): The composition according to claim 56, wherein said foodstuff is an animal feed comprised of grain material, a source of protein, vitamins, amino acids, and minerals.

Claim 58 (previously presented): The composition according to claim 57, wherein said grain material is corn, sorghum, wheat, barley or oats.

Claim 59 (previously presented): The composition according to claim 57, wherein said source of protein is beans or peas.

Claim 60 (previously presented): The composition according to claim 32, wherein said composition is in a solid or a liquid formulation.

Claim 61 (previously presented): The composition according to claim 32, wherein said enzyme is contained in a tablet or gelatin capsule shell.

Claim 62 (previously presented): The composition according to claim 32, wherein said enzyme is a hemicellulase.

Claim 63 (previously presented): The composition according to claim 62, wherein said hemicellulase is a mannanase.

Claim 64 (previously presented): The composition according to claim 63, wherein said mannanase is the endo-1,4- β -D-mannanase produced by *Bacillus lentus* designated as ATCC 55045.

Claim 65 (cancelled)

Claim 66 (cancelled)

Claim 67 (cancelled)

Claim 68 (cancelled)

Claim 69 (previously presented): The composition according to claim 32, wherein said composition further comprises a stabilizer, a carbohydrate carrier or a preservative.

Claim 70 (previously presented): The composition according to claim 69, wherein said stabilizer is a buffer, a carbohydrate or a glycol.

Claim 71 (previously presented): The composition according to claim 69, wherein said carbohydrate carrier is selected from the group consisting of xylose, fructose, glucose, sorbitol, and maltotriose.

Claim 72 (previously presented): The composition according to claim 69, wherein said preservative is selected from the group consisting of propylparaben, sodium sorbate, potassium sorbate, and ascorbyl palmitate.

Claim 73 (new): The composition according to claim 39, wherein said phospholipase is 1-phosphatidylinositol phosphodiesterase.

Claim 74 (new): The composition according to claim 39, wherein said type C phospholipase belongs to enzyme class, E.C. 3.1.4.10.

Claim 75 (new): The composition according to claim 39, wherein said phospholipase is glycosyl-phosphatidylinositol-specific phospholipase D.

Claim 76. (new): A method of treating or ameliorating the risk of a digestive tract infection, comprising orally administering, to a subject suffering from or at risk for suffering said infection, an effective amount of said composition according to claim 1.

Claim 77. (new): The method according to claim 76, wherein said enzyme cleaves a linkage that effects release of a cell-surface protein.

Claim 78. (new): The method according to claim 76, wherein said method does not include administering an anti-infection agent other than said enzyme.

Claim 79. (new): The method according to claim 76, wherein said infection is caused by a protozoan, bacterial, yeast, or fungal pathogen.

Claim 80. (new): The method according to claim 79, wherein said infection is caused by a protozoan pathogen of the genus *Eimeria*.

Claim 81. (new): The method according to claim 79, wherein said infection is caused by a protozoan pathogen of the genus *Cryptosporidium*

Claim 82. (new): The method according to claim 79, wherein said infection is caused by a bacterial pathogen of the genus *Clostridium*.

Claim 83. (new): The method according to claim 76, comprising administering orally, to said subject, an extracellular enzyme preparation from a *Bacillus cereus* strain.

Claim 84. (new): The method according to claim 83, wherein said *Bacillus cereus* strain is ATCC 7004 or ATCC 6464.

Claim 85. (new): The method according to claim 76, wherein said enzyme is obtained by expression of a recombinant DNA in a host organism.

Claim 86. (new): The method according to claim 85, wherein said host organism is from a *Bacillus megaterium* strain.

Claim 87. (new): A method of treating or ameliorating the risk of a digestive tract infection, comprising orally administering, to a subject suffering from or at risk for suffering said infection, an effective amount of said composition according to claim 32, wherein said method does not include administering, with said composition, an antimicrobially effective amount of another anti-infection agent.

Claim 88. (new): The method according to claim 87, wherein said infection is caused by a protozoan, bacterial, yeast, or fungal pathogen.

Claim 89. (new): The method according to claim 88, wherein said infection is caused by a protozoan pathogen of the genus *Eimeria*.

Claim 90. (new): The method according to claim 88, wherein said infection is caused by a protozoan pathogen of the genus *Cryptosporidium*.

Claim 91. (new): The method according to claim 88, wherein said infection is caused by a bacterial pathogen of the genus *Clostridium*.

Claim 92. (new): The method according to claim 87, wherein said enzyme is a hemicellulase.

Claim 93. (new): The method according to claim 92, wherein said hemicellulase is a mannanase.

Claim 94. (new): The method according to claim 93, wherein said mannanase is the endo-1,4- β -D-mannanase produced by *Bacillus lentus* designated as ATCC 55045.